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ABSTRACT

This study utilized Cameron's (1978) construct of organizational effectiveness to identify the relationship between the predictor variables of: (1) managerial strategy; (2) organizational culture; (3) change in the external environment; and (4) resource dependency, using causal modeling procedures. This construct is a theoretical framework that incorporates the use of multiple perspectives that can be recorded in relationship to one another. The study is based on a survey of 304 academic deans of American Assembly of Collegiate Schools of Business member programs for the United States and Canada. The findings suggest that internal organizational culture has the most important influence on organizational effectiveness, with some support for managerial strategy as a key indicator of effectiveness. (Contains 74 references.) (Author/MDM)

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# THE EFFECTS OF ENVIRONMENT, STRATEGY, CULTURE, AND RESOURCE DEPENDENCY ON PERCEPTIONS OF ORGANIZATIONAL EFFECTIVENESS OF SCHOOLS OF BUSINESS

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*Abstract*

A study utilizing Cameron's (1978) construct of organizational effectiveness was conducted among higher education schools of business to identify the relationship between the predictor variables of 1) managerial strategy, 2) organizational culture, 3) change in the external environment, 4) resource dependency and organizational effectiveness through the use of causal modeling procedures. Responses from 304 academic deans of American Assembly of Collegiate Schools of Business member programs were used for data analysis.

The findings suggest that internal organizational culture has the most important influence on organizational effectiveness with some support for managerial strategy as a key indicator of effectiveness.

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# The Effects of Environment, Strategy, Culture, and Resource Dependency on Perceptions of Organizational Effectiveness of Schools of Business

Business education in American colleges and universities is undergoing serious change after decades of unparalleled growth (Fuchsberg, 1992). Declining enrollments (Narisetti, 1991), increased criticism from corporate America (Linder & Smith 1992; Mason, 1992), and the need for new curricular developments in response to competition and changes in business and society (Fuchsberg, 1992) have put added pressures on schools of business as they formulate strategies for survival in an increasingly uncertain external environment. The overall effectiveness of one school of business versus another is heatedly debated in published semi-annual rankings (e.g., Business Week's, "The Best B-Schools") and other ratings of faculty publications, graduate salaries and job offers, with attendant disputes over academic accreditation.

Part of the problem with measuring the effectiveness of business schools, is their dual role as academic and professional institutions serving two different constituencies, one academic and the other in practice (Cheit, 1985). Service to the academic discipline (e.g., rigor in theory and scholarship) competes with service to practice (e.g., applied problems and operations). With the near certainty that business schools will assume an ever more prominent role in the public debate over the country's current economic and social problems, it becomes imperative that systematic analysis is extended not simply to the larger higher education institution in which the school of business resides but to the school or department of business itself.

In institutions of higher education, organizational effectiveness is extremely difficult to define and measure for a variety of reasons. First, there is little agreement among academic researchers as to what constitutes effectiveness in higher education given the complexity and multifaceted nature of educational goals and outcomes (Cameron, 1978). Secondly, there is widespread skepticism of traditional measures of effectiveness such as faculty reputation and research, caliber of student body, library size, etc. (Cameron, 1986; Pascarella and Terenzini, 1991). Third, the effectiveness of higher education institutions which is an external evaluation of what the institution is doing is often confused with the internal efficiency in which its tasks are done (Meeth, 1974). Finally, it has been suggested that higher education is somehow unique and different from more traditional business settings thus rendering as inapplicable most general organizational

effectiveness research (March and Olsen 1976; Weick 1976). Cameron suggests that the problem of studying organizational effectiveness in a diffuse higher education environment "...lies in identifying a core group of effectiveness criteria that are relevant to organizational members, applicable across subunits, and comparable across institutions" (Cameron, 1978 p. 611).

Researchers in organizational theory have developed a number of multidimensional measures of effectiveness to describe the process by which decision makers determine the overall performance of the organization to its external and internal environments (Cameron, 1978; Peters & Waterman, 1982; Quinn & Rohrbaugh, 1983). Cameron's (1978) construct of organizational effectiveness is a theoretical framework that incorporates the use of multiple perspectives that can be recorded in relationship to one another. The criteria developed by Cameron has been used by other researchers in studies of college and university effectiveness (Hamm, 1992; Giglioti, 1987; Kleeman, 1984; Rush, 1988; Elliott, 1987). In his studies of organizational effectiveness on colleges and universities, Cameron (1978, 1986) concluded that the two main predictors of effectiveness were environmental factors and management strategies. The studies showed that environmental conditions "negatively associate with high effectiveness on dimensions relating to morale and smooth internal functioning of the institutions" (Cameron, 1986:107) while managerial strategies were positively associated with high effectiveness relating to the external environment.

Establishing measurements of effectiveness for schools of business in general is of little use as a "diagnosis" for determining effectiveness in individual business schools without an understanding of why the school exists in such a state. Four predictor variables found to be associated with performance in other types of organizations were utilized in this study. Representing <u>external</u> measures of effectiveness were *change in the external environment* and *resource dependency*. Representing an <u>internal</u> measure of effectiveness for this study was the variable of *organizational culture*. Finally, the variable of *managerial strategy* was hypothesized in this study to be affected by both external and internal factors as represented by the three preceding variables and to significantly impact organizational effectiveness. The primary purpose of this study was to test empirically the validity of this hypothesis and to ascertain through the use of a theoretical model whether in fact managerial strategy had the most significant influence of the predictor variables identified for this study on perceptions of effectiveness.

## External Measures of Effectiveness

### Change In The External Environment

The measures of change in the external environment included in this study were grounded in the research of

Milliken (1987, 1990). Her primary contribution to the study of the external environment was that the construct of "environmental uncertainty" is not unidimensional but multidimensional. She proposed three salient features of the external environments of organizations and developed measures for each of these features. The three external environment characteristics proposed by Milliken are state uncertainty- defined as uncertainty about the state of the environment; effect uncertainty- defined as an inability to predict the nature of the impact of a future environmental change on the organization; and response uncertainty- defined as "a lack of knowledge of response options and/or an inability to predict the likely consequences of a response choice" (1987:137). What differentiates these three types of uncertainty from one another is the type of environmental information that an organization's administrators perceive to be lacking. "State" uncertainty is most closely associated with variation in the objective characteristics of the environment such as the degree of environmental volatility or complexity through the actions of relevant organizational constituencies or through general changes in the relevant environment (e.g., new trends, demographic shifts, new technology, etc.). "Effect" uncertainty is concerned with whether change in the environment will actually affect "your" organization. For example, knowing that a transitional period affecting the environment for schools of business in general may take place does not precisely indicate how or when it will affect your particular school. "Response" uncertainty is associated with the decision makers' perceived need to act and the lack of information about the value of different courses of action in terms of achieving the outcomes of the organization.

**Resource Dependency**

Effectiveness in organizations is also heavily dependent upon the availability of resources necessary to successfully function in the external environment. Pfeffer and Salancik (1978) developed the premise that organizations are not internally self-sufficient and require resources from the environment for continuing survival. For-profit organizations operate under constraints of competition and availability of resources but can develop new markets as they see fit. In contrast, non-profit organizations such as colleges and universities have less geographic mobility, provide a market mix of mainly mature and declining products and face difficult external environments within the constraints of their distinctive role in society (Clark, 1983; Meyer and Rowan, 1978). Previous research suggests that the two primary external constraints resulting from resource dependence for colleges and universities is the availability of financial resources (St. John, 1991; Volkswein, 1989; Francis, 1982; Dickmeyer, 1980; Minter, 1980) and student enrollment (Pfeffer and Moore, 1980).

**An Internal Measure of Effectiveness**

A key internal factor found in research to influence effectiveness is organizational culture. The importance of understanding culture lies in the fact that core values and assumptions are often at the root of organizational structures in determining organizational development (Denison & Spreitzer, 1991). Culture in organizations can be explained as "a set of symbols, ceremonies, and myths that communicate the underlying values and beliefs of that organization to its employees" (Ouchi, 1981). Research by Ouchi (1980, 1981, 1983) suggested three types of organizational culture: 1) *Clans*- Socialization of all organizational members to a common goal with a close interchange between work and social life. 2) *Markets*- Measuring contributions of organizational members to the common good with compensation based upon contribution and competitive bidding for services and 3) *Hierarchies*- Contractual specifications of rights and duties to organizational members but with a lack of a clear sense of the value of their services. Researchers utilizing this model have found that there is a strong consistency in the manner by which organizational effectiveness is associated with the *dominant* culture type of four-year colleges and universities (Cameron and Ettington, 1988) and two-year community colleges (Smart and Hamm, 1993). For example, both studies found that institutions with clan cultures have greater effectiveness in promoting higher levels of internal morale among students, faculty, and staff, while institutions with a dominant market culture are more successful in their interactions with the external environment. Additional research has suggested that strong, externally oriented cultures are more effective than weak, internally oriented cultures (Cameron, 1987; Arnold and Capella, 1985).

**Managerial Strategy**

The growing impact of external environmental and resource restraints in higher education combined with a renewed emphasis on understanding how internal culture affects the actions and structure of different organizational components are brought together in the concept of organizational strategy. Strategy is defined as "the pattern of decisions and activities that allocate the organization's resources in an environment of demands, constraints and opportunities" (Cameron & Tshirhart 1992, p.89). One typology of strategy measures implied in previous research on organizations is the existence of active and passive types of strategy (Snow & Hrebiniak, 1980; Cameron, 1986; Clott, 1994). Typically, active organizations have an external emphasis and are constantly stimulating organizational change while passive organizations are oriented to internal affairs and are reactive in nature. Overall, active strategies have been more important in mitigating the negative effects of the turbulent environments now found in colleges and universities (Cameron & Tschirhart, 1992).

The linkage between managerial strategy and organizational effectiveness has been noted in studies by Cameron (1978, 1981, 1983), Cameron and Zammuto (1983), Miles and Cameron (1982) and Doty, Glick and Huber (1993) as most strongly associated with improving effectiveness over time. Studies by Cameron and others of four year colleges and universities and the tobacco industry suggest that strategy contributes to change in effectiveness while perceptions of the environment and cultural relationships were a product of changing effectiveness. Research by Cameron suggests that "the strategic emphases and choices of managers, therefore, are the critical factors to be included in assessments of organizational effectiveness" (1983: p.107).

**Causal Model**

This study uses a causal model to address the direct and indirect influences of external, internal and strategic measures of organizations on overall perceptions of organizational effectiveness by academic deans for collegiate schools of business. The model is loosely based on the strategy and effectiveness theories and literature, and is made up of three general components. The first component is a block of variables which are exogenous. The variables consist of two external constructs which are change in the external environment and availability of resources, and one internal construct which is type of organizational culture. The second component is the endogenous variable of strategic type. The final variable in each model is the dependent variable. For the model estimated in this study, the dependent variable represents the different dimensions of organizational effectiveness.

The model flows in a sequence which is both temporal and consistent with the previous literature review. The specific variables comprising the model are described and detailed below.

Figure 1 is a diagrammatic representation of the model to be estimated in this study. The external and internal constructs (the exogenous variables) and the mediating (endogenous) strategy variable remain the same for each model. The dependent variable of effectiveness is tested for each of the various effectiveness scales.

The direction of the effects in the various path models is from left to right. Arrows indicate expected significant effects. If no path is drawn from one variable to another then no effect is hypothesized. However, all possible paths will be estimated in the analysis. An arrow drawn directly from the left or exogenous variables to the right or dependent variable represents an hypothesized direct effect, whereas all other arrows represent the hypothesized paths of indirect effects upon the dependent variable through the mediating variable.

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Insert Figure 1 about here.

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**Research Procedures**

The subjects chosen for this study were the academic deans of schools of business and accredited schools of accountancy in the United States and Canada. Their titles included dean, director, or chairperson. These subjects were chosen because they are presumed to be the primary individuals involved with the external and internal environment of the organization and are considered to represent the "dominant coalition" in schools of business. Cameron and others (Yuchtman and Seashore, 1967; Pennings and Goodman, 1977) considered dominant coalition members to be the key persons to determine managerial strategy as it impacts on the organizational effectiveness of institutions of higher education "since they comprised the resource allocators, the determiners of organizational policy, and the explicators of organizational goals" (Cameron, 1978: 612). Therefore, the academic deans were determined to be the best subjects to analyze the influence of the previously mentioned independent variables on perceptions of organizational effectiveness at their respective institutions.

A survey sample of 806 deans of graduate and undergraduate schools of business and accountancy comprising the entire population of American Assembly of Collegiate Schools of Business (AACSB) member institutions for the United States and Canada was selected for study. Three hundred four (304) completed surveys were returned for a 38 percent response rate. Of the 304 schools of business and accountancy studied, 195 (64%) were public, and 109 (36%) were private. Comparable data for the total population of AACSB member institutions are: 58% public and 42% private (AACSB, 1992-1993). Ninety-three (30.5%) of the respondents were deans of schools of business classified as small (50 - 1000 students enrolled in undergraduate/graduate business programs), One hundred fifteen (38%) respondents were deans of medium-sized business programs (1001- 2500 students), and ninety-six (31.5%) of the respondents were classified as deans of large (over 2500 students) business programs (AACSB, 1993).

Demographic data on the respondent sample characteristics suggest a diversity of age, experience and work activity. A profile of the average respondent is a white male between the ages of 45 and 55 with 10 years of experience at the school of business and 1 to 5 years of experience as a dean. On average, the respondents spend 30 to 50 hours a week on internal college or university activities pertaining to the school of business and 5 to 15 hours a week on external contact with professional colleagues and/or business professionals outside of the school of business.

**Variables**

**Change In the External Environment.** The measures of change in the external environment included in this study were grounded in the research of Milliken (1987, 1990). In a modification of her study on college administrators, a set of nine external environmental trends affecting schools of business were enumerated. The 304 respondents were asked to select the most important perceived environmental trend from nine possible choices. The environmental trend perceived as most important to the respondent's school of business was then used to measure the differentiated state, effect and response uncertainties as hypothesized by Milliken. Scales were created to measure each type. The study incorporated Milliken's three characteristics of the external environments of organizations. 1) **State** Uncertainty reflects the uncertainty about the general state of the environment and is associated with variation in the objective characteristics of the environment. 2) **Effect** Uncertainty reflects the perceived effect of the identified trend on the respondents' school of business. 3) **Response** Uncertainty reflects the uncertainty associated with the decision makers perceived need to act and the lack of information about the value of different courses of action in terms of achieving the outcomes of the organization.

**Availability of Resources.** The measures of resource availability included in this study are derived from numerous studies of external resource dependence necessary for continued survival (Miles and Cameron, 1982; Cameron and Tschirhart, 1992). In their summary of the literature on organizational decline, Cameron, Sutton and Whetten (1988) suggested that decline occurs for organizations when there is a deterioration of adaptation to the external environment coupled with a reduction of resources in the organization. This research suggests the crucial importance of measuring resource availability for varying conditions of decline (Cameron, 1986 Cameron and Zammuto, 1984). Unfortunately, no uniformly acceptable measures exist to determine resource availability across organizations (Cameron, 1978). This study incorporates two previously used primary external constraints as measures of resource availability for schools of business; availability of financial resources and student enrollments.

**Organizational Culture.** The measure of organizational culture type of school of business in this study was derived from research performed by Ouchi (1980, 1981). The three types of culture utilized were 1) A <u>Clan</u> culture type identified through an emphasis on shared goals and values and through consensus decision making. 2) A <u>Hierarchy</u> type identified through an emphasis on order, authority and efficiency. 3) a <u>Market</u> type identified through an emphasis on competitiveness, goal accomplishment and efficiency and through the mechanisms of the marketplace.

There is some controversy about the measurement of organizational culture (Zammuto and Krakower, 1991). For example, some researchers have suggested that quantitative measures of culture are not appropriate to the measure of group social behavior because it is "too much a product of the social scientist's rather than participant's point of view" (Ouchi and Wilkins, 1985:470). This is countered by others who believe that "the whole point of the contemporary study of organizational culture is to go beyond the method of the anthropologist by applying multivariate statistical analysis" (Ouchi and Wilkins, 1985;478). This study utilized a Likert measurement scale as suggested by researchers when correlation-based analyses (e.g., factor analysis, regression analysis) are performed (Quinn and Spreitzer, 1991). Likert scales facilitate the development of more statistically independent measures of each culture type in that they are not linearly dependent.

**Managerial Strategy.** The measure of strategy in schools of business was based on the Miles and Snow (1978) strategy model which identifies the organization's strategic orientations toward their task environment and how they attempt to respond to it. Four strategic types, (Prospector, Analyzer, Defender and Reactor) were identified in research performed by Miles and Snow (1978) as making up the construct of managerial strategy. Since its publication, the Miles and Snow typology has been exhaustively investigated by organizational researchers as a measure of strategy but with many inconsistencies in empirical testing of the theory resulting in a variation in the reported levels of support and a lack of agreed upon measures (Zahra and Pearce, 1990; Doty, Glick and Huber, 1993). For example, researchers have incorporated different numbers of the "ideal" strategic types and different interpretations of these types (Snow and Hrebiniak, 1980; Hambrick, 1983, Zajac and Shortell, 1989). Previous research suggests that two types, Active (Prospector) and Passive (Reactor), emerged as appropriate measures of managerial strategy as theorized (Clott, 1994; Snow and Hrebiniak, 1980). The strategy measures were obtained through use of a 5 point Likert scale from strong disagreement to strong agreement. A correlation coefficient showed acceptable levels of relationships between the two variables.

**Organizational Effectiveness.** Effectiveness was measured by 32 Likert-type items developed by Cameron (1978) to assess critical characteristics of college and university performance and modified slightly to accommodate the differences between four year colleges and the specific sub-unit of the school of business. Cameron's original nine dimension measure of effectiveness lacked strong construct validity for measuring perceptions of effectiveness among business school deans and was modified to seven dimensions

(Clott, 1994). The seven dimensions are: 1) *Student Educational Satisfaction:* the degree of satisfaction of students with their educational experiences at the institution. 2) *Resource:* the extent of academic attainment, growth, and progress of students at the institution and the ability of the institution to acquire resources from the external environment including good students, faculty, staff, and all manner of resources. 3) *Student Career Development:* the extent of occupational development of students, and the emphasis on career development and the opportunities provided by the institution for personal development. 4) *Openness:* student development in nonacademic, noncareer oriented areas, that is social, emotional, and cultural development with the emphasis on personal development and opportunities provided by the school for personal development and the emphasis placed on interaction with, adaptation to, and service to the external environment. 5) *Faculty and Administrator Employment Satisfaction:* the satisfaction of faculty members and administrators with jobs and employment at the institution. 6) *Professional Development and Quality of the Faculty:* the extent of professional attainment and development of the faculty, and the amount of stimulation toward professional development provided by the institution. 7) *Organizational Health:* benevolence, vitality, and viability in the internal processes and practices at the institution.

Eleven of the thirty-two items that comprise the seven effectiveness scales above were measured on a 5 point Likert type scale, while twenty of the items were measured on a 7 point Likert scale. One of the items was measured on a 4 point scale. Therefore, all 32 items were standardized with a means of zero and standard deviation of one prior to the analyses described below.

**Analyses**

A series of preliminary analyses, using factor analytic procedures, were conducted to assess the construct validity of the intended scales. The basic intent of these analyses was to determine the dimensionality of the intended scales and to investigate the contribution of individual items to the obtained rotated factors. These preliminary analyses resulted in several modifications in the number and nature of scales included in the current study. The modifications were based on the information obtained from the factor analyses and the reliability of the scales ultimately used was assessed through the use of Cronbach's coefficient alpha. Table 1 presents the specific variables used in the study with their alpha coefficients.

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(Insert Table 1 about here.)

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The effects implied by the hypothesized model were estimated using GEMINI (Wolfle and Ethington, 1985) a FORTRAN program based on the work of Sobel (1982). The direct causal

effects are estimated by partial regression coefficients, while the indirect effects are estimated by the sum of products of the direct causal effects through the intervening variables. Path coefficients are provided in both standardized and unstandardized form, permitting both substantive interpretation and means of assessing the relative influence of the variables in the path model.

**Results**

The estimation of the direct and indirect effects implied by the model proposed was done in two parts. First, ordinary least squares regression was used to estimate the coefficients of the seven structural equations defining the model. Each endogenous variable was regressed on all exogenous variables and all preceding endogenous measures. This produced seven sets of regression coefficients representing the direct effects of the causal factors on the dependent measures. Second, the indirect effects were calculated using GEMINI (Wolfle and Ethington, 1985) a FORTRAN program based on the work of Sobel (1982). No evidence of multicollinearity problems was found for the data. A series of seven multiple regressions analyses were conducted with each of the seven effectiveness dimensions as the dependent variables. The ten independent variables in the analyses were: three environmental uncertainty measures (State, Effect, and Response), two measures of resource availability (Finance and Enrollment), three culture variables (Market, Clan and Hierarchy), and two types of managerial strategy (Active and Passive). Table 2 presents the means, standard deviations, and correlation's among the variables in the causal model. The results of the estimated parameters of the seven structural equations in the model are given in both standardized and metric form in Table 3 and are interpreted as the average amount of change an individual coefficient represents in the dependent variable produced by a unit change in the independent variable when all other independent variables are held constant.

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Insert Tables 2 & 3 about here.

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The final equations in this table show considerable differences in the amount of variance accounted for in each of the seven effectiveness dimensions. The amount of variance (R2) represents the percent of explained variance from the regression of the dependent outcome on each of the independent variables. For example, the ten independent variables explain 40 percent and 39 percent of the variance in Openness and Organizational Health respectively, while they explain but 13 percent and 15 percent of the variance in Student Career Development and Professional Development and Quality of the Faculty. The three remaining dimensions are grouped between the percentages above with the independent variables explaining 33, 25, and 22 percent of the variance

in Faculty Employment Satisfaction, Resource and Student Educational Satisfaction respectively.

An examination of the standardized and metric direct, indirect and total effects for each independent variable on each effectiveness dimension are provided in Table 4. The alpha used to describe the strength of the relationship between each independent and dependent variable was set at $p < .05$ for claims of statistical significance to be made for the entire analysis.

**Discussion**

Much of the research in organizational effectiveness has been guided by the premises of theorists who have espoused the view of external environmental influences as the primary determinants of effectiveness (Pfeffer and Salancik, 1978; Aldrich, 1979); theorists who suggest that internal cultural influences are the major determinants of effectiveness (Ouchi, 1981; Deal and Kennedy, 1982) ; and researchers subscribing to managerial strategy as the key indicator of effectiveness (Cameron, 1986; Miles and Cameron, 1982). The findings of the current study suggest that while there is some support for each perspective, it is the internal cultural factors that have the most important influence on organizational effectiveness There is only modest support for the existence of external environmental factors as major determinants of effectiveness. The findings at the sub-unit level of analysis run counter to a major premise of Cameron's research on colleges and universities which suggested the critical importance of environmental factors in determining effectiveness (Cameron, 1986). Of the two external variables used in this study, Change In the External Environment was relatively unimportant with the exception of modest indirect effects upon three of the effectiveness scales for the Response type, uncertainty, while the variables comprising Resource Availability exhibited modest influence on four of the effectiveness dimensions. Greater support exists in the study for the premise that managerial strategy is a key indicator of effectiveness at the sub-unit level. Research studies by Cameron (1983, 1985, 1986) and others have suggested that strategy is an important factor to be included in assessments of effectiveness, and the findings in this study provide some support for this conclusion. An Active (proactive) managerial strategy was found to be an important influence on the external and academic dimensions of Openness and Student Educational Satisfaction, respectively, whereas the Passive (reactive) managerial strategy was found to exert a strong significant negative influence on the internal effectiveness dimensions of Professional Development and Quality of Faculty, Faculty Employment Satisfaction, and Organizational Health.

The findings in this study essentially corroborate research by Ouchi, (1981), Tierney (1988), Zammuto and Krakower (1991), Dennison (1990) and others on the important links between culture and effectiveness. Support from this

study for the perspective of the internal theorists may be seen in the significant indirect influences of the Clan and Hierarchical culture variables and the strong indirect and direct effects of the Market culture on all seven effectiveness dimensions. The Market culture exerts strong positive significance through mediation by the Active strategy on the dimensions of Openness and Student Educational Satisfaction and significant indirect effects exerted through the Passive strategy variable for Organizational Health. The findings corroborate previous research suggesting that market oriented cultures are more effective than other culture types upon dimensions relating to the external environment and academic quality (Cameron and Freeman, 1991).

Both the Market and Clan culture types share similar positive characteristics such as the emphasis on a team approach with the need for cohesion and commitment to the organization. One factor that may influence the degree of association between these two culture types may be the need to rely upon specific individual performance for organizational success; not a perquisite within the Hierarchical culture type. In the field of higher education for example, there is an increasing specialization of disciplines requiring faculty members to meet the standards of their peers; a process referred to by Clark (1989) as self-amplification. Self-amplification is loosely defined as increasing the magnitude of one's variable quantity without altering the quality by increasing the stature and reach of the individual institution through an expansion of individual research. The specialization of research thus creates a number of cultural homes that exist not simply as isolated tunnels but overlap one another to produce "...a collective communication, a collective competence and breadth" (Campbell, 1969).

Another factor which may influence the magnitude of the relationship between these two culture types is the development of Clan type forms of control at the subunit level that are efficient within a greater Market oriented organization (Wilkins and Ouchi, 1983). In the area of higher education, researchers have suggested an evolution in American academic organizations from clan or collegial forms to bureaucratic or hierarchical means of control and more recently to various adaptations of market control mechanisms as competition has increased (Dill, 1992; Trow, 1988). The specialization of disciplines within the school of business suggests that faculty members with common professional interests will be placed together to perform organizational duties. The shared professional clan orientation thus will reinforce a set of shared values within an overall market oriented organizational culture (Wilkins and Ouchi, 1983; Lawrence and Lorsch, 1967).

One further possible factor likely to influence the strength of the association between Clan and Market cultures may be the perceived relevance of change impacting upon the

organization. Under conditions of rapid change characterized by complexity, uncertainty, and ambiguity, it appears that both the Market and Clan are proactive culture types that provide a complimentary bedrock of meaningful beliefs and values for the organizations members while at the same time actively changing the character of the school of business through innovation and creative activity (Cameron, 1983, 1984; Chaffee, 1984). This is possibly done through the existence of "superordinant" goals which have a compelling appeal for both market and clan groups (Schein, 1970; Johnson and Lewicki, 1969). These goals need not be clearly stated to be understood by organizational members who may be unaware of the culture in the sense of not consciously verbalizing it (Schein, 1985). The symbolic role of organizational leadership, in the creation of meaningful goals that offer something of value in return for one's efforts, may create an environment that focuses more on general principles than on specific practices thus providing greater adaptability in periods of environmental turbulence (Ouchi and Wilkins, 1983; Schein, 1985; Deal and Kennedy, 1982).

Finally, the findings relating to the effect of participation in decision making have potentially important implications in terms of the design of organizations. If the Market culture is necessary for a proactive managerial strategy in relation to external effectiveness, the implication of the finding is that a commitment to innovation and development through development of a strong internal culture must first be communicated to the individuals within the organization through creation of a common vision oriented around the achievement of agreed upon tasks and goals. Differences in opinion may occur because of differences in interpretation of the marketplace or they may result from too much internal competition to generate enrollments, tuition, gifts and research grants. However, participation in a Market culture seems to be a positive force in achieving a common purpose for a culturally diverse and competitive workforce.

Future research on effectiveness could be markedly improved through a redesigned set of effectiveness criteria that incorporates this study and others (Hamm, 1992; Krakower and Niwa, 1985). The major limitation of the approach utilized in this study is that it is limited, in this case, to the perceptions of one constituency member. While the business school dean is presumed to be the most knowledgeable individual to understand the strengths and weaknesses of an institution this may not be the case for all effectiveness dimensions. Research by Clott (1992) suggested that dominant coalition members (e.g., administrators, faculty department chairs, and board of trustee members) within higher education may have very different perceptions of effectiveness. Business school deans may also be unique among academic leaders in higher education in their perception of organizational culture. A case may also be made that organizational members of schools of business have

fundamentally different values and orientations due to the nature of the discipline (Cheit, 1985; Hugstad, 1983).

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**Figure 1.**

**The Causal Model**

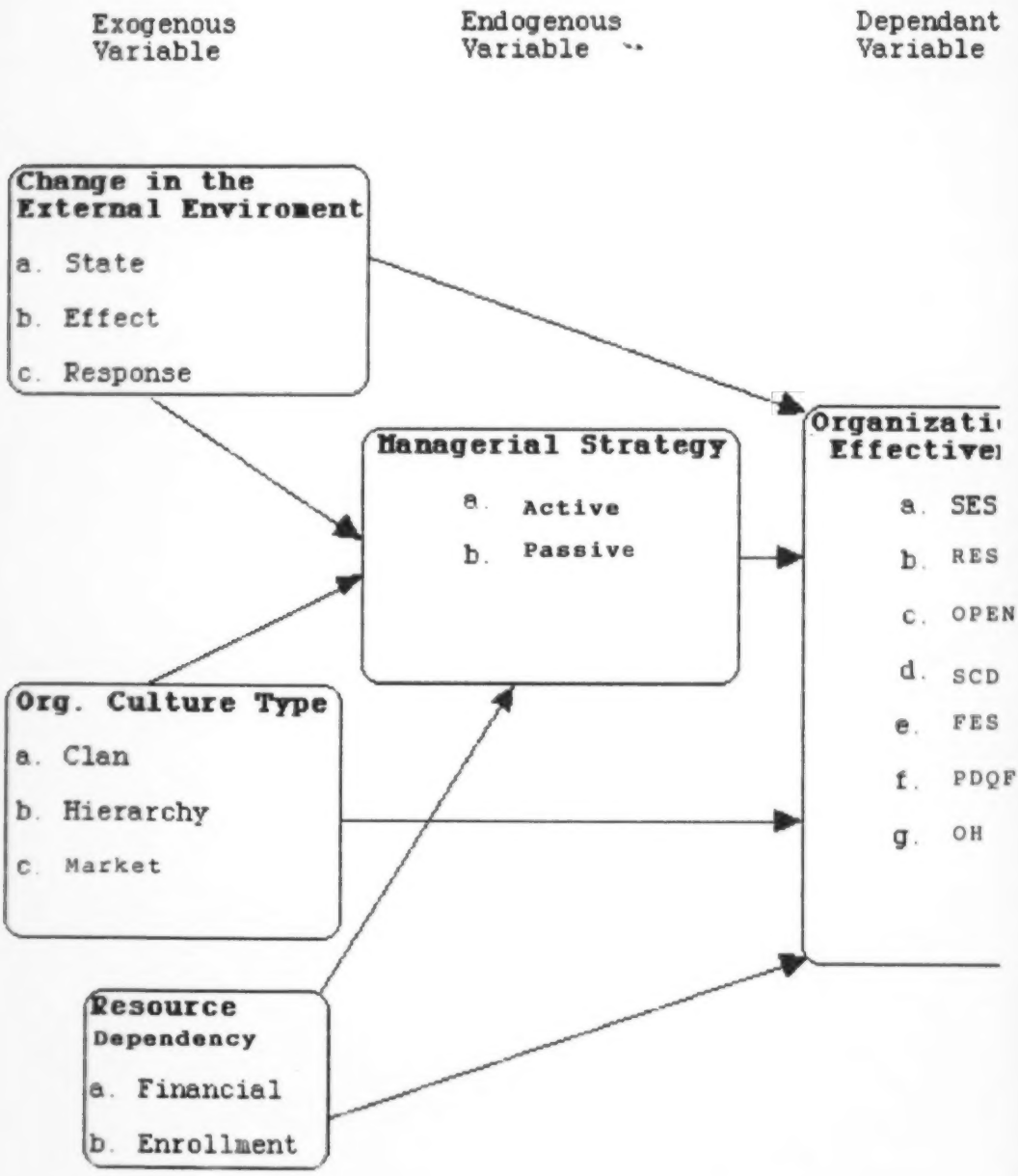

Table 1. Operational definitions of variables included in the causal model.

| Variables | Definitions |
|---|---|
| *Change In the External Environment* | |
| 1. State Uncertainty | A single item measuring uncertainty associated with variation in the objective characteristic of the environmental trend perceived as the most important. |
| 2. Effect Uncertainty | A single item measuring uncertainty in the perceived effect of the identified trend on the respondents' school of business. |
| 3. Response Uncertainty | A scale created by summing after standardizing four items asking respondent perceptions of the degree of difficulty associated with the lack of information about the value of different courses of action in terms of achieving outcomes. (alpha reliability=.75). |
| *Resource Dependency* | |
| 1. Availability of Financial Resources | A scale created by summing after standardizing three items measuring perceptions of the financial resources of the school of business. (alpha reliability=.62). |
| 2. Student Enrollments | A scale created by summing after standardizing two items measuring perceptions of the level of student enrollments for the school of business. (alpha reliability=.80). |
| *Type of Organizational Culture* | |
| 1. Clan | A scale created by summing after standardizing four items measuring an emphasis on shared goals and values identified through consensus decision making. (alpha reliability= .73). |
| 2. Hierarchy | A scale created by summing after standardizing two items measuring an emphasis on order, authority and efficiency. (alpha reliabability= .67). |
| 3. Market | A scale created by summing after standardizing five items measuring an emphasis on competitiveness, goal accomplishment and efficiency through the mechanisms of the marketplace. (alpha reliability=.68). |

*Managerial Strategy*

| | |
|---|---|
| 1. Active | A scale created by summing after standardizing four items measuring organizational strategies that are constantly experimenting and initiating change for growth and development. (alpha reliability=.80). |
| 2. Passive | A scale created by summing after standardizing three items measuring organizational strategies that are conservative and internally oriented, overly focused on cost containment and reactive. (alpha reliability=.72). |

*Organizational Effectiveness*

| | |
|---|---|
| 1. Student Educational Satisfaction | A scale created by summinming after standardizing three items measuring the degree of satisfaction of students with their educational experiences at the institution.(alpha reliability=.73). |
| 2. Resource | A scale created by summing after standardizing five items measuring the ability of the school of business to attract and acquire resources from the external environment including good students and faculty that impact upon the growth and progress of student academic development. (alpha reliability=.74). |
| 3. Openness | A scale created by summing after standardizing six items measuring student development in personal,nonacademic, areas, associated with interaction, adaptation and service to the external environment.(alpha reliability=.74). |
| 4. Student Career Development | A scale created by summing after standardizing three items measuring the extent of academic attainment, growth, and progress of students at the institution. (alpha reliability=.58) |
| 5. Faculty Employment Satisfaction | A scale created by summing after standardizing two items measuring the satisfaction of faculty members with jobs and employment at the institution.(alpha reliability=64). |
| 6. Professional Development Quality of the Faculty | A scale created by summing after standardizing four items measuring the extent of professional attainment and development of the faculty, and the amount of stimulation toward professional development provided by the institution.(alpha reliability=.82). |
| 7. Organizational Health | A scale created by summing after standardizing five items measuring the benevolence, vitality, and viability in the internal processes and practices at the institution.(alpha reliability=.82). |

TABLE 2.

CORRELATIONS, MEANS AND STANDARD DEVIATIONS FOR VARIABLES IN THE MODEL OF ORGANIZATIONAL EFFECTIVENESS FOR SCHOOLS OF BUSINESS

(N=252)

| | STATE | EFFECT | RESPONSE | FINANCE | ENROLLMT | MARKET | HIERARCHY | CLAN | ACTIVE |
|---|---|---|---|---|---|---|---|---|---|
| STATE | 1 | 0.631 | 0.089 | -0.064 | 0.042 | -0.123 | 0.056 | -0.133 | -0.04 |
| EFFECT | 0.631 | 1 | 0.082 | -0.058 | -0.05 | -0.191 | 0.085 | -0.232 | -0.06 |
| RESPONSE | 0.089 | 0.082 | 1 | 0.088 | 0.18 | 0.183 | -0.105 | 0.067 | 0.233 |
| FINANCE | -0.064 | -0.058 | 0.088 | 1 | 0.244 | 0.084 | -0.097 | 0.14 | 0.068 |
| ENROLLMT | 0.042 | -0.05 | 0.18 | 0.244 | 1 | 0.126 | -0.161 | 0.141 | 0.183 |
| MARKET | -0.123 | -0.191 | 0.183 | 0.084 | 0.126 | 1 | -0.207 | 0.362 | 0.647 |
| HIERARCHY | 0.056 | 0.085 | -0.105 | -0.097 | -0.161 | -0.207 | 1 | -0.308 | -0.29 |
| CLAN | -0.133 | -0.232 | 0.067 | 0.14 | 0.141 | 0.362 | -0.308 | 1 | 0.371 |
| ACTIVE | -0.046 | -0.068 | 0.233 | 0.068 | 0.183 | 0.647 | -0.299 | 0.371 | 1 |
| PASSIVE | 0.031 | 0.092 | -0.268 | -0.125 | -0.215 | -0.473 | 0.258 | -0.417 | -0.49 |
| SES | -0.019 | -0.082 | 0.204 | 0.09 | 0.121 | 0.304 | -0.265 | 0.343 | 0.365 |
| OPENNESS | -0.043 | -0.135 | 0.186 | 0.07 | 0.172 | 0.521 | -0.188 | 0.429 | 0.538 |
| RESOURCE | -0.039 | -0.129 | 0.192 | 0.114 | 0.24 | 0.421 | -0.179 | 0.266 | 0.359 |
| SCD | -0.124 | -0.187 | 0.106 | 0.044 | 0.176 | 0.265 | -0.009 | 0.113 | 0.194 |
| PDQF | -0.036 | -0.074 | 0.101 | -0.029 | 0.086 | 0.287 | -0.11 | 0.185 | 0.21 |
| FES | -0.122 | -0.17 | 0.157 | 0.266 | 0.065 | 0.355 | -0.283 | 0.413 | 0.286 |
| OH | -0.058 | -0.142 | 0.181 | 0.187 | 0.053 | 0.472 | -0.271 | 0.452 | 0.411 |
| MEAN | 519.96 | 588.11 | 12.599 | 6.171 | 5.421 | 16.163 | 5.063 | 12.925 | 13.67 |
| ST.D | 477.33 | 375.41 | 3.047 | 2.281 | 2.515 | 3.556 | 1.981 | 3.458 | 3.364 |

TABLE I. (Continued)

| | PASSIVE | SES | OPENNESS | RESOURCE | SCD | PDQF | FES | OH |
|---|---|---|---|---|---|---|---|---|
| STATE | 0.031 | -0.019 | -0.043 | -0.038 | -0.124 | -0.036 | -0.122 | -0.058 |
| EFFECT | 0.092 | -0.082 | -0.135 | -0.129 | -0.187 | -0.074 | -0.17 | -0.142 |
| RESPONSE | -0.268 | 0.204 | 0.186 | 0.186 | 0.106 | 0.101 | 0.157 | 0.181 |
| FINANCE | -0.125 | 0.09 | 0.07 | 0.104 | 0.044 | -0.029 | 0.266 | 0.187 |
| ENROLLMT | -0.215 | 0.121 | 0.172 | 0.241 | 0.176 | 0.086 | 0.065 | 0.053 |
| MARKET | -0.473 | 0.304 | 0.521 | 0.438 | 0.265 | 0.287 | 0.355 | 0.472 |
| HIERARCHY | 0.258 | -0.265 | -0.188 | -0.182 | -0.009 | -0.11 | -0.283 | -0.271 |
| CLAN | -0.417 | 0.343 | 0.429 | 0.275 | 0.113 | 0.185 | 0.413 | 0.452 |
| ACTIVE | -0.496 | 0.365 | 0.538 | 0.374 | 0.194 | 0.21 | 0.286 | 0.411 |
| PASSIVE | 1 | -0.333 | -0.431 | -0.349 | -0.219 | -0.355 | -0.43 | -0.48 |
| SES | -0.333 | 1 | 0.453 | 0.397 | 0.237 | 0.347 | 0.412 | 0.495 |
| OPENNESS | -0.431 | 0.453 | 1 | 0.503 | 0.305 | 0.413 | 0.447 | 0.468 |
| RESOURCE | -0.345 | 0.388 | 0.493 | 1 | 0.431 | 0.547 | 0.381 | 0.393 |
| SCD | -0.219 | 0.237 | 0.305 | 0.425 | 1 | 0.293 | 0.163 | 0.134 |
| PDQF | -0.355 | 0.347 | 0.413 | 0.547 | 0.293 | 1 | 0.359 | 0.367 |
| FES | -0.43 | 0.412 | 0.447 | 0.377 | 0.163 | 0.359 | 1 | 0.484 |
| OH | -0.48 | 0.495 | 0.468 | 0.395 | 0.134 | 0.367 | 0.367 | 1 |
| MEAN | 6.929 | 13 | 20.397 | 17.679 | 16.607 | 19.643 | 8.825 | 15.98 |
| ST.D | 2.842 | 2.01 | 4.096 | 4.147 | 2.105 | 4.288 | 1.564 | 4.858 |

TABLE 3.

STRUCTURAL PARAMETER ESTIMATES FOR EFFECTIVENESS DIMENSIONS

| | DEPENDENT VARIABLES | | | | | | |
|---|---|---|---|---|---|---|---|
| | SES | OPEN | RES. | SCD | PDQF | FES | OH |
| INDEPENDENT VARIABLES | | | | | | | |
| PASSIVE | -0.095 | -0.096 | -0.01 | -0.11 | *-.291 | *-.246 | *-.229 |
| | *0.067* | *-0.138* | *-0.126* | *-0.081* | *-0.439* | *-0.135* | *-0.39* |
| ACTIVE | *.164 | *.262 | 0.061 | 0.018 | -0.064 | -0.06 | 0.0 |
| | *0.098* | *0.319* | *0.064* | *0.011* | *-0.082* | *-0.028* | *0.05* |
| CLAN | *.180 | *.210 | 0.058 | -0.031 | 0.023 | *.207 | *.223 |
| | *0.104* | *0.249* | *0.059* | *-0.019* | *0.028* | *0.093* | *0.31* |
| HIERARCHY | -0.114 | 0.037 | -0.026 | -0.09 | -0.011 | *-.128 | -0.08 |
| | *0.115* | *0.077* | *-0.046* | *-0.095* | *-0.025* | *-0.101* | *-0.20* |
| MARKET | 0.041 | *.221 | *.266 | *.178 | *.180 | *.150 | *.231 |
| | *0.023* | *0.255* | *0.266* | *0.105* | *0.217* | *0.066* | *0.31* |
| ENROLLMENT | -0.006 | 0.043 | *.137 | *.137 | 0.027 | 0.107 | *-.122 |
| | *-0.005* | *0.070* | *0.193* | *0.115* | *0.046* | *0.066* | *-0.23* |
| FINANCE | 0.019 | -0.018 | 0.023 | -0.02 | -0.088 | *.202 | *.122 |
| | *0.017* | *-0.033* | *0.035* | *-0.018* | *-0.166* | *0.138* | *0.26* |
| RESPONSE | 0.107 | 0.042 | 0.070 | -0.042 | 0.006 | 0.057 | 0.05 |
| | *0.070* | *0.056* | *0.082* | *-0.029* | *0.009* | *0.029* | *0.08* |

TABLE 3.(Continued)

DEPENDENT VARIABLES

| INDEPENDENT VARIABLES | SES | OPEN | RES. | SCD | PDQF | FES | OH |
|---|---|---|---|---|---|---|---|
| EFFECT | -0.037 | -0.057 | -0.075 | -0.132 | -0.013 | -0.049 | -0.05 |
| | *0.000* | *0.000* | *0.000* | *0.000* | *0.000* | *0.000* | *0.00* |
| STATE | 0.042 | 0.054 | 0.046 | -0.034 | -0.003 | -0.020 | 0.05 |
| | *0.000* | *0.000* | *0.000* | *0.000* | *0.000* | *0.000* | *0.00* |
| R2 | 0.221 | 0.400 | 0.246 | 0.127 | 0.153 | 0.330 | 0.39 |

Note, Metric coefficients are in italics.

*p < .05

**TABLE 4.**

STANDARDIZED DIRECT, INDIRECT AND TOTAL EFFECTS OF INDEPENDENT VARIABLES ON DIMENSIONS OF ORGANIZATIONAL EFFECTIVENESS

| Dependent Variable = SES | Direct | Indirect | Total |
|---|---|---|---|
| Independent Variables | | | |
| Passive | -0.095 | | -0.095 |
| Active | *.164 | | *.164 |
| Clan | 0.18 | *.046 | *.226 |
| Hierarchy | -0.114 | *-.029 | *-.143 |
| Market | 0.041 | *.123 | *.165 |
| Enrollment | -0.006 | 0.02 | 0.013 |
| Finance | 0.019 | -0.003 | 0.016 |
| Response | 0.107 | 0.03 | *.137 |
| Effect | -0.037 | 0.016 | -0.021 |
| State | 0.042 | -0.001 | 0.041 |

*p < .05

| Dependent Variable = OPEN | Direct | Indirect | Total |
|---|---|---|---|
| Independent Variables | | | |
| PASSIVE | 0.096 | | -0.096 |
| ACTIVE | *.262 | | *.262 |
| CLAN | *.210 | *.059 | *.270 |
| HIERARCHY | 0.037 | *-.041 | 0.004 |
| MARKET | *.221 | *.179 | *.400 |
| ENROLLMENT | 0.043 | 0.026 | 0.07 |
| FINANCE | -0.018 | -0.006 | -0.024 |
| RESPONSE | 0.042 | *.039 | 0.081 |
| EFFECT | -0.057 | 0.024 | -0.032 |
| STATE | 0.054 | -0.003 | 0.051 |

*p < .05

| Dependent Variable = RESOURCE | Direct | Indirect | Total |
|---|---|---|---|
| Independent Variables | | | |
| PASSIVE | -0.1 | | -0.1 |
| ACTIVE | 0.061 | | 0.061 |
| CLAN | 0.058 | 0.033 | 0.091 |
| HIERARCHY | -0.026 | -0.016 | -0.042 |
| MARKET | *.266 | 0.067 | *.333 |
| ENROLLMENT | *.137 | 0.013 | *.150 |
| FINANCE | 0.023 | 0 | 0.023 |
| RESPONSE | 0.07 | 0.022 | 0.092 |
| EFFECT | -0.075 | 0.007 | -0.068 |
| STATE | 0.047 | 0 | 0.047 |

*p < .05

| Dependent Variable = SCD | Direct | Indirect | Total |
|---|---|---|---|
| PASSIVE | -0.11 | | -0.11 |
| ACTIVE | 0.018 | | 0.018 |
| CLAN | -0.031 | 0.03 | 0 |
| HIERARCHY | 0.09 | -0.011 | 0.078 |
| MARKET | *.178 | 0.046 | *.224 |
| ENROLLMENT | *.137 | 0.011 | *.148 |
| FINANCE | -0.02 | 0.001 | -0.018 |
| RESPONSE | 0.042 | 0.019 | 0.061 |
| EFFECT | -0.132 | 0.003 | -0.129 |
| STATE | -0.034 | 0.001 | -0.032 |

p < .05

| Dependent Variable = PDQF | Direct | Indirect | Total |
|---|---|---|---|
| PASSIVE | *-.291 | | *-.291 |
| ACTIVE | -0.064 | | 0.064 |
| CLAN | 0.023 | *.065 | 0.088 |
| HIERARCHY | -0.011 | -0.015 | -0.027 |
| MARKET | *.180 | 0.058 | *.239 |
| ENROLLMENT | 0.027 | 0.022 | 0.049 |
| FINANCE | -0.088 | 0.007 | -0.08 |
| RESPONSE | 0.006 | *.041 | 0.047 |
| EFFECT | -0.013 | -0.001 | -0.014 |
| STATE | -0.003 | 0.007 | 0.004 |

p < .05

| Dependent Variable = FES | Direct | Indirect | Total |
|---|---|---|---|
| Independent Variables | | | |
| PASSIVE | *-.246 | | *-.246 |
| ACTIVE | -0.06 | | -0.06 |
| CLAN | *.207 | *.054 | *.262 |
| HIERARCHY | *-.128 | -0.012 | *-.141 |
| MARKET | *.150 | 0.046 | *.196 |
| ENROLLMENT | -0.107 | 0.018 | -0.088 |
| FINANCE | *.202 | 0.006 | *.208 |
| RESPONSE | 0.057 | 0.034 | 0.091 |
| EFFECT | -0.049 | 0.001 | -0.05 |
| STATE | -0.02 | 0.006 | -0.014 |

| Dependent Variable = OH | Direct | Indirect | Total |
|---|---|---|---|
| PASSIVE | *-.229 | | *-.229 |
| ACTIVE | 0.04 | | 0.04 |
| CLAN | *.223 | *.063 | *.286 |
| HIERARCHY | -0.083 | -0.023 | *-.107 |
| MARKET | *.231 | *.097 | *.328 |
| ENROLLMENT | *-.122 | 0.023 | -0.098 |
| FINANCE | *.122 | 0.003 | *.125 |
| RESPONSE | 0.054 | *.040 | 0.095 |
| EFFECT | -0.053 | 0.007 | -0.046 |
| STATE | 0.055 | 0.003 | 0.059 |

$p < .05$